

REMARKS

Amendments to the Claims and Arguments for Allowability

Applicant has cancelled claims 2-3, 16, 20 and 24 without disclaimer of any
5 kind regarding their merits as originally filed, while retaining all rights for
reintroduction of any and all subject matter contain therein at any time throughout the
prosecution of this application. Further consideration of claims 2-3, 16, 20 and 24 is
no longer requested.

10 Claims 1, 4 and 6 have been amended.

Regarding currently amended claim 1, applicant has amended several portions
without introducing new matter. The key module has been clarified as comprising
key cells, each having “an output end being selectively connected to one of a first
15 voltage while being pressed and a second voltage while not being pressed” (claim 1,
emphasis showing amendments). When combined with originally presented clause
“without polling for a status of the key cells during a time period between any key
cell being connected to the first voltage and then connected to the second voltage”
(claim 1, emphasis added), applicant asserts this feature has already been presented in
20 allowable claim 26 “without the processor polling for a status of the key cells during a
time period between any key cell being pressed and then released”. Additionally,
applicant also points to remarks presented in the Amendments to the Claims in the
Amendment and Request for Continued Examination, dated December 17, 2007,
which explain that the “present invention solves the problem of the prior art that
25 continuous polling is required whenever any key cell is pressed (e.g. from time t_1 to t_4
in FIG.3), and thereby improves the efficiency of the processor” (page 9, lines 9
through 23).

Additionally, aspects and features originally presented in (now cancelled)
claims 2 and 3 have been amended and incorporated into claim 1. In particular, the
30 included phrase “a plurality of capacitors each having a first end being coupled to the
output end of each of the key cells, respectively, and having a second end” (claim 1,

emphasis added) is derived from claim 2 (now cancelled). The introduction of “an amplifying circuit” (claim 1) and “the amplifying circuit is configured for amplifying a voltage in one of the capacitors” (claim 1) is derived from claim 3 (now cancelled) which claimed the detect circuit comprising “an amplifying circuit electrically
5 connected to the capacitor for amplifying the voltage in the capacitor” (claim 3). That claim 1 now includes “the second ends of the capacitors are connected together and couple to the amplifying circuit” (claim 1, emphasis added) can be found originally presented in FIG.2, depicted by plurality of capacitors 64, 65 having first ends respectively coupled to the output ends 60, 61 of the key cells, where the second ends
10 are connected together and coupled to the amplifying circuit 66. Applicant confirms no new matter is entered.

The added supplement of claim 1 claims “wherein the control signal is generated according to the amplified voltage” (claim 1). Support for this feature can be found in FIG.2: control signal CS (shown at point OUT_{or}) is generated according
15 to the amplified voltage (which exists at point OUT_{amp}, the output of amplifier 66). Applicant further refers to paragraph [0015] of the description, which states that two comparators “are electrically connected to the amplifier 66 for comparing the voltage output by the amplifier 66 and outputting the control signal”. In this example, the control signal CS is generated by the two comparators according to the amplified
20 voltage (the output OUT_{amp} of amplifier 66) as claimed in claim 1.

Other minor typographical errors have also been corrected.

Concerning the patentability of currently amended claim 1, applicant asserts that claim 1 as amended should be found allowable and patentable over prior art, as none of the cited prior arts claims all of the features presented in claim 1. In particular,
25 in the response to the arguments for claim 1 on page 9 of the Office action of 03/21/2008, the Examiner stated ‘Examiner respectfully disagrees and submits that Nakazawa does teach this newly amended limitation if the ‘first voltage’ is interpreted to be the key-up voltage and the ‘second voltage’ is interpreted as the key-down voltage’. However, in currently amended claim 1, this interpretation is no
30 longer possible because currently amended claim 1 now claims, “a first voltage while being pressed and a second voltage while not being pressed”. For at least this reason,

consideration and allowance of claim 1 is respectfully requested. Claims 4-6 and 18 and 22 are dependent upon base claim 1 and should be found allowable for at least the same reason. Further comments regarding particular dependent claims is provided in the below paragraphs.

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Claim 4 has been modified to be dependent upon independent claim 1, and terminology has been updated, referring to “the amplified voltage” as defined in currently amended independent claim 1 and removing now-redundant verbiage. No new matter is presented.

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Claim 6 has been amended to be dependent upon claim 5 instead of upon claim 4. No new matter is added.

To reiterate, to new matter is introduced in these amendments. Applicant respectfully requests Examiner consideration of the amended claims and claims dependent upon them.

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Claim Rejections – 35 USC §103

Claims 1, 16, 18 and 20 are rejected under 35 U.S.C. 103(a). Claims 4-6, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable.

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Independent claim 1 is currently amended without introducing new matter, and applicant asserts that amended claim 1 should be found allowable and patentable over the prior art for at least the above described reasons. In addition, Hackmeister only discloses that the key cell is an ohmic contact (13') rather than a key cell having an output end being selectively connected to one of a first voltage while being pressed and a second voltage while not being pressed, and fails to teach the feature “the second ends of the capacitors are **connected together** and coupled to the amplifying circuit” as recited in amended claim 1. Therefore, Nakazawa, Schnizlein and Hackmeister, or even their combination, fail to teach or suggest the claimed features in amend claim 1. As claims 4-6, 18, and 22 are dependent upon claim 1, applicant also respectfully requests reconsideration and allowance of the above dependent

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claims.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazawa and Schnizlein as applied to claims 1, 16, 18 and 20 above, and
5 **further in view of U.S. Patent No. 4,027,306 to Hackmeister (“Hackmeister”).**

Applicant has cancelled claims 2-3, 16, 20 and 24 without disclaimer of any kind regarding their merits as originally filed, while retaining all rights for reintroduction of any and all subject matter contain therein at any time throughout the prosecution of this application.

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Allowable Subject Matter - Claims 7-15, 17, 19, 21, 23, 25 and 26 are allowed


The applicant thanks the Examiner for the indication of the allowable subject matter.

15 **Conclusion**

Thus, all pending claims are submitted to be in condition for allowance with respect to the cited art for at least the reasons presented above. The Examiner is encouraged to telephone the undersigned if there are informalities that can be resolved in a phone conversation, or if the Examiner has any ideas or suggestions for
20 further advancing the prosecution of this case.

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Sincerely yours,



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